CLAIMS

1. A method of filtering at least two series of seismic data representative of the same zone, the method being characterized by determining an estimate of the component that is common to the data series, and deducing a resolution of these data series from the estimate.

2. A method according to claim 1, characterized by determining a cross variogram of these data series and solving the co-kriging equation, which results in automatically deducing an estimate of the component that is common to the data series.

3. A method according to claim 1 or claim 2, characterized by determining the orthogonal residues for the various data series by subtracting the estimated common component from each of the data series.

4. A method according to any preceding claim, characterized by implementing kriging analysis to resolve said orthogonal residues.

5. A method of processing seismic data in which, in order to compare two series of seismic data corresponding, for the same zone, to grids of at least one common attribute obtained for two distinct values of at least one given parameter, a filtering method according to any one of claims 1 to 4 is implemented.

6. A method of filtering at least one series of seismic data representative of at least one zone, the method being characterized by identifying a model of a component of three-dimensional variability of its variogram, subtracting said model from the experimental variogram, and solving the kriging equation corresponding to the different variograms in order to deduce an estimate of

the corresponding variability component on the data series.

7. A method of processing seismic data in which, in order to compare two series of seismic data corresponding, for the same zone, to grids of at least one common attribute obtained at two different instants, a filtering method according to any one of claims 1 to 4 is implemented.